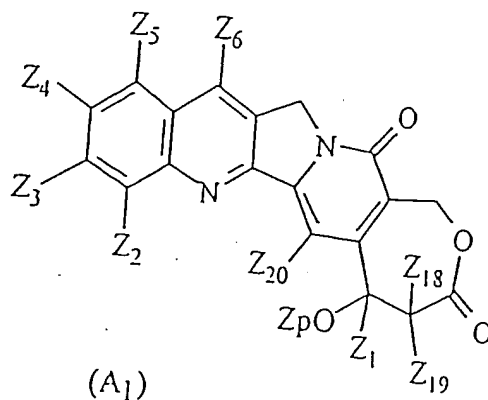


## AMENDMENTS TO THE CLAIMS

### **Claim 1 (previously presented)**

A compound of the formula



in racemic or enantiomeric form or any combination of these forms, wherein

Z<sub>1</sub> is a member selected from the group consisting of lower alkyl, lower alkenyl, lower alkynyl, lower haloalkyl, lower alkoxy lower alkyl and lower alkylthio lower alkyl;

Z<sub>2</sub>, Z<sub>3</sub>, Z<sub>4</sub>, Z<sub>5</sub> and Z<sub>6</sub> are independently a member selected from the group consisting of,

- i) H, halo, lower haloalkyl, alkyl of 1 to 12 carbon atoms unsubstituted or substituted by at least one halo, lower alkenyl, cycloalkyl, cycloalkyl lower alkyl, cyano, lower cyanoalkyl, nitro, lower nitroalkyl, amido, lower amidoalkyl, hydrazino, lower hydrazinoalkyl, azido, lower azidoalkyl, lower alkyl lower sulphonylalkyl,  $-(CH_2)_mNZ'_6Z'_7$ ,  $-(CH_2)_mOZ'_6$ ,

$-(CH_2)_m-SZ'_6$ ,  $-(CH_2)_mCO_2Z'_6$ ,  $-(CH_2)_mNZ'_6C(O)Z_8$ ,  
 $-(CH_2)_mC(O)Z_8$ ,  $-(CH_2)_mOC(O)Z_8$ ,  $-O-(CH_2)_mNZ'_6Z'_7$ ,  $-OC(O)NZ'_6Z'_7$ ,  
 $-OC(O)(CH_2)_mCO_2Z'_6$ ,  $-OSO_2Z_7$ ,  $-(CH_2)_mN(CH_3)_nNZ'_6Z'_7$ ,  
 $-(CH_2)_mOC(O)NZ'_6Z'_7$ ,  $-(CH_2)_mS(O)_qZ_{11}$ ,  $-(CH_2)_mP(O)Z_{12}Z_{13}$ ,  
 $-(CH_2)_2P(S)Z_{12}Z_{13}$ ,  $-(CH_2)_mSiZ'_{11}Z'_{12}Z'_{13}$ ; or ii)  $-(CH_2)_n[N=X]$ ,  
 $-OC(O)[N=X]$ ,  $-(CH_2)_mOC(O)[N=X]$ , aryl and lower arylalkyl, each  
 unsubstituted or substituted with 1 to 4 members on the aryl or the  
 heterocycle selected from the group consisting of lower alkyl, lower  
 arylalkyl, halo, hydroxy,  $-OCF_3$ , nitro, amino, lower alkylamino, di(lower  
 alkyl) amino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and  
 lower alkoxy lower alkyl or iii)  $Z_3$  and  $Z_4$  or  $Z_4$  and  $Z_5$  form together a  
 chain of 3 or 4 members in which the elements of the chain are selected  
 from the group consisting of CH,  $CH_2$ , O, S, N or  $NZ_9$ ;

$Z_7$  is a member selected from the group consisting of lower alkyl  
 unsubstituted or substituted by at least one halo, aryl unsubstituted or  
 substituted by at least one lower alkyl;

$Z'_6$  and  $Z'_7$  are independently a member selected from the group consisting of i) H,  
 lower alkyl, lower hydroxyalkyl, lower alkyl lower aminoalkyl, lower  
 aminoalkyl, cycloalkyl, cycloalkyl lower alkyl, lower alkenyl, lower  
 alkoxy lower alkyl and haloalkyl, or ii) aryl or lower arylalkyl, each  
 unsubstituted or substituted on the aryl with 1 to 4 members selected from

the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;

Z<sub>8</sub> is a member selected from the group consisting of i) H, lower alkyl, lower hydroxyalkyl, amino, lower alkylamino, lower alkyl lower aminoalkyl, lower aminoalkyl, cycloalkyl, cycloalkyl lower alkyl, lower alkenyl, lower alkoxy, lower alkoxy lower alkyl and lower haloalkyl, or ii) aryl or lower ~~each~~ arylalkyl each unsubstituted or substituted on the aryl with 1 to 4 members selected from the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl ;

Z<sub>9</sub> is a member selected from the group consisting of i) H, lower alkyl, lower haloalkyl, or ii) aryl and lower arylalkyl each unsubstituted or substituted with a member selected from the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;

Z<sub>10</sub> is a member selected from the group consisting of i) H, lower alkyl, lower haloalkyl and lower alkoxy, or ii) aryl unsubstituted or substituted on the aryl with a member selected from the group consisting of lower alkyl, lower haloalkyl, lower hydroxyalkyl and lower alkoxy lower alkyl;

Z<sub>11</sub> is a member selected from the group consisting of lower alkyl, aryl,  $-(CH_2)_mOZ_{14}$ ,  $-(CH_2)_mSZ_{14}$ ,  $-(CH_2)_2NZ_{14}Z_{15}$  and  $(CH_2)_m[N=X]$ ;

$Z_{12}$  and  $Z_{13}$  are independently members selected from the group consisting of lower alkyl, aryl, lower alkoxy, aryloxy and amino;

$Z'_{11}$ ,  $Z'_{12}$  and  $Z'_{13}$  are independently a member selected from the group consisting of H or lower alkyl;

$Z_{14}$  and  $Z_{15}$  are independently a member selected from the group consisting of H, lower alkyl and aryl;

$Z_{18}$  and  $Z_{19}$  are independently a member selected from the group consisting of H, halo, lower alkyl, lower alkoxy and hydroxy;

$Z_{20}$  is H or halo;

$Z_p$  is a member selected from the group consisting of H or an easily cleavable group chosen from the groups corresponding to the formula  $-C(O)-A-NZ_{22}Z_{23}$  in which A represents a linear or branched alkylene unsubstituted or substituted by a member selected from the group consisting of free, esterified or salified hydroxy, halogen, free, esterified or salified carboxy, amino, mono and dialkylamino;

$Z_{22}$  and  $Z_{23}$  are independently a member selected from the group consisting of i) H, lower alkyl, lower hydroxyalkyl, lower alkyl lower aminoalkyl, lower aminoalkyl, cycloalkyl, cycloalkyl lower alkyl,, lower alkenyl, lower alkoxy lower alkyl, lower haloalkyl, or ii) aryl or lower arylalkyl each unsubstituted or substituted on the aryl with 1 to 4 members selected from the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino,

lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy  
lower alkyl;

m is an integer between 0 and 6;

n is 1 or 2; and

q is an integer from 0 to 2; and

[N=X] is a heterocyclic group with 4 to 7 ring members with the nitrogen atom a member of the heterocyclic ring, and X is the chain necessary to complete said heterocyclic group and selected from the group consisting of O, S, CH<sub>2</sub>, CH, N, NZ<sub>9</sub> and C(O)Z<sub>10</sub>;

or its pharmaceutically acceptable salt.

**Claim 2 (currently amended)**

A compound of claim 1, in racemic or enantiomeric form or any combinations of these forms, wherein

- $Z_1$  is a member selected from the group consisting of lower alkyl, lower alkenyl, lower alkynyl, lower haloalkyl, lower alkoxy lower alkyl and lower alkylthio lower alkyl;
- $Z_2$  is a member selected from the group consisting of H, halo and  $-\text{OSO}_2Z_7$ ;
- $Z_3$ ,  $Z_4$  and  $Z_5$  are independently a member selected from the group consisting of i) H, halo, lower haloalkyl, lower alkyl, lower alkenyl, cyano, lower cyanoalkyl, nitro, lower nitroalkyl, amido, lower amidoalkyl, hydrazino, lower hydrazinoalkyl, azido, lower azidoalkyl,  $-(\text{CH}_2)_m\text{NZ}'_6\text{Z}'_7$ ,  $-(\text{CH}_2)_m\text{OZ}'_6$ ,  $-(\text{CH}_2)_m\text{SZ}'_6$ ,  $-(\text{CH}_2)_m\text{CO}_2\text{Z}'_6$ ,  $-(\text{CH}_2)_m\text{NZ}'_6\text{C}(\text{O})Z_8$ ,  $-(\text{CH}_2)_m\text{C}(\text{O})Z_8$ ,  $-(\text{CH}_2)_m\text{OC}(\text{O})Z_8$ ,  $-\text{O}(\text{CH}_2)_m\text{NZ}'_6\text{Z}'_7$ ,  $-\text{OC}(\text{O})\text{NZ}'_6\text{Z}'_7$ ,  $-\text{OC}(\text{O})(\text{CH}_2)_m\text{CO}_2\text{Z}'_6$  and  $-\text{OSO}_2Z_7$  or ii)  $-(\text{CH}_2)_n[\text{N}=\text{X}]$ ,  $-\text{OC}(\text{O})[\text{N}=\text{X}]$ ,  $-(\text{CH}_2)_m\text{OC}(\text{O})[\text{N}=\text{X}]$  wherein  $[\text{N}=\text{X}]$  is a heterocyclic group with 4 to 7 ring members with the nitrogen atom, which is a member of the heterocyclic group, and X is the remaining members, which are necessary to complete the heterocyclic group, selected from the group consisting of O, S,

CH<sub>2</sub>, CH, N, NZ<sub>9</sub> and COZ<sub>10</sub>, aryl or lower arylalkyl, each unsubstituted or substituted on the aryl or the heterocycle with 1 to 4 members selected from the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl, or iii) Z<sub>3</sub> and Z<sub>4</sub> or Z<sub>4</sub> and Z<sub>5</sub> form together a chain with 3 to 4 members in which the elements of the chain are selected from the group consisting of CH, CH<sub>2</sub>, O, S, N and NZ<sub>9</sub>;

Z<sub>6</sub> is a member selected from the group consisting of i) H, halo, lower haloalkyl, alkyl containing 1 to 12 carbon atoms, unsubstituted or substituted by at least one halo, lower alkoxy, lower alkoxy lower alkyl, lower alkylthio lower alkyl, cycloalkyl, cycloalkyl lower alkyl, cyano, cyanoalkyl, lower alkyl lower sulfonylalkyl, lower hydroxyalkyl, nitro, - (CH<sub>2</sub>)<sub>m</sub>C(O)Z<sub>8</sub>, -(CH<sub>2</sub>)<sub>m</sub>NZ'<sub>6</sub>C(O)Z<sub>8</sub>, -(CH<sub>2</sub>)<sub>m</sub>NZ'<sub>6</sub>Z'<sub>7</sub>, -(CH<sub>2</sub>)<sub>m</sub>N(CH<sub>3</sub>)(CH<sub>2</sub>)<sub>n</sub>NZ'<sub>6</sub>Z'<sub>7</sub>, -(CH<sub>2</sub>)<sub>m</sub>OC(O)Z<sub>8</sub>, -(CH<sub>2</sub>)<sub>m</sub>OC(O)NZ'<sub>6</sub>Z'<sub>7</sub>, -(CH<sub>2</sub>)<sub>m</sub>S(O)<sub>q</sub>Z<sub>11</sub>, -(CH<sub>2</sub>)<sub>m</sub>P(O)Z<sub>12</sub>Z<sub>13</sub>, -(CH<sub>2</sub>)<sub>2</sub>P(S)Z<sub>12</sub>Z<sub>13</sub>, and -(CH<sub>2</sub>)<sub>m</sub>SiZ'<sub>11</sub>Z'<sub>12</sub>Z'<sub>13</sub>; or ii) -(CH<sub>2</sub>)<sub>n</sub>[N=X], -OC(O) [N=X], -(CH<sub>2</sub>)<sub>m</sub>OC(O) [N=X], each unsubstituted or substituted on the heteroaryl with 1 to 4 members of the group consisting of lower alkyl, lower

arylalkyl, halo, hydroxyl, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl; or **iii)** aryl or lower arylalkyl, each unsubstituted or substituted on the aryl with 1 to 4 members of the group consisting of lower alkyl ~~alkyle~~, aralkyl, halo, hydroxy, nitro, -OCF<sub>3</sub>, amino, lower alkylamino, di(lower alkyl)amino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;

**Z<sub>7</sub>** is a member selected from the group consisting of lower alkyl unsubstituted or substituted by at least one halo, and aryl unsubstituted or substituted by at least one lower alkyl;

**Z'<sub>6</sub> and Z'<sub>7</sub>** are independently a member selected from the group consisting of **i)** H, lower alkyl, lower hydroxyalkyl, lower alkyl lower aminoalkyl, lower aminoalkyl, cycloalkyl, cycloalkyl lower alkyl, lower alkenyl, lower alkoxy lower alkyl and lower haloalkyl, or **ii)** aryl or lower arylalkyl each unsubstituted or substituted on the aryl with 1 to 4 members of the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;



- $Z_8$  is a member selected from the group consisting of i) H, lower alkyl, lower hydroxyalkyl, amino, lower alkylamino, lower alkyl lower aminoalkyl, lower aminoalkyl cycloalkyl, cycloalkyl lower alkyl, lower alkenyl, lower alkoxy, lower alkoxy lower alkyl and lower haloalkyl, or ii) aryl or lower arylalkyl, each unsubstituted or substituted on the aryl with 1 to 4 members of the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;
- $Z_9$  is a member selected from the group consisting of i) H, lower alkyl and lower haloalkyl or ii) aryl or lower arylalkyl, each unsubstituted or substituted with a member of the group consisting of lower alkyl, halo, nitro, amino, lower alkyloamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;
- $Z_{10}$  is a member selected from the group consisting of i) H, lower alkyl, lower haloalkyl and lower alkoxy, or ii) aryl unsubstituted or substituted on the aryl with 1 to 4 members of the group consisting of lower alkyl, lower haloalkyl, lower hydroxyalkyl and lower alkoxy lower alkyl;

$Z_{11}$  is a member selected from the group consisting of lower alkyl, aryl,  
- $(CH_2)_m OZ_{14}$ , - $(CH_2)_m SZ_{14}$ , - $(CH_2)_2 NZ_{14}Z_{15}$  and - $(CH_2)_m [N=X]$ ;

$Z_{12}$  and  $Z_{13}$  are independently a member selected from the group consisting of lower  
alkyl, aryl, lower alkoxy, aryloxy and amino;

$Z'_{11}$ ,  $Z'_{12}$  and  $Z'_{13}$  are independently H or lower alkyl;

$Z_{14}$  and  $Z_{15}$  are independently a member selected from the group consisting of H,  
lower alkyl and aryl;

$Z_{18}$  and  $Z_{19}$  are independently a member selected from the group consisting of H, halo,  
lower alkyl, lower alkoxy and hydroxyl;

$Z_{20}$  is H or halo;

$Z_p$  represents H or an easily cleavable group of the formula  $-C(O)-A-NZ_{22}Z_{23}$ , wherein A is alkylene unsubstituted or substituted by a member selected from the group consisting of free, esterified or salified hydroxyl, halogen, free, esterified or salified carboxy, amino and mono and dialkylamino;

$Z_{22}$  and  $Z_{23}$  are independently a member selected from the group consisting of i) H, lower alkyl, lower hydroxyalkyl, lower alkyl lower aminoalkyl, lower aminoalkyl, cycloalkyl, cycloalkyl lower alkyl, lower alkenyl, lower alkoxy lower alkyl, lower haloalkyl, or ii) aryl or lower arylalkyl, each unsubstituted or substituted by 1 to 4 members of the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;

m is an integer between 0 and 6; and

n is 1 or 2; and

q is an integer from 0 to 2; and

$[N=X]$  is a heterocyclic group with 4 to 7 ring members

with the nitrogen atom which is a member of the heterocyclic ring, and X is the chain necessary to complete said heterocyclic group and is selected from the group consisting of O, S, CH<sub>2</sub>, CH, N, NZ<sub>9</sub> and COZ<sub>10</sub>; or a pharmaceutically acceptable salt thereof.

**Claim 3** (previously presented)

A compound of claim 1 wherein Z<sub>2</sub> is H or halo or a pharmaceutically acceptable salt thereof.

**Claim 4** (previously presented)

A compound of claim 1 wherein Z<sub>3</sub> is halo; or a pharmaceutically acceptable salt thereof.

**Claim 5** (previously presented)

A compound of claim 1 wherein

Z<sub>1</sub> is lower alkyl;

Z<sub>2</sub> is H or halo;

Z<sub>3</sub> Z<sub>4</sub> and Z<sub>5</sub> are independently a member selected from the group consisting of

i) H, halo, lower alkyl, -(CH<sub>2</sub>)<sub>m</sub>NZ'<sub>6</sub>Z'<sub>7</sub>, -(CH<sub>2</sub>)<sub>m</sub>OZ'<sub>6</sub> and -OSO<sub>2</sub>Z<sub>7</sub>

Or

ii) -(CH<sub>2</sub>)<sub>n</sub>[N=X] or

iii) Z<sub>3</sub> and Z<sub>4</sub> or Z<sub>4</sub> and Z<sub>5</sub> form together a chain with 3 or 4 members in which the elements of the chain are selected from the group

consisting of CH, CH<sub>2</sub>, O, S, N and NZ<sub>9</sub>;

Z<sub>6</sub> is a member selected from the group consisting of i) H, halo, alkyl of 1 to 12 carbon atoms unsubstituted or substituted by at least one halo, lower alkoxy lower alkyl, cycloalkyl, cycloalkyl lower alkyl, lower hydroxyalkyl, -(CH<sub>2</sub>)<sub>m</sub>NZ'<sub>6</sub>Z'<sub>7</sub> and -(CH<sub>2</sub>)<sub>m</sub>SiZ'<sub>11</sub>Z'<sub>12</sub>Z'<sub>13</sub>; or ii) -(CH<sub>2</sub>)<sub>n</sub>[N=X] unsubstituted or substituted with lower alkyl or lower arylalkyl or iii) aryl or lower arylalkyl, each unsubstituted or substituted with a member selected from the group consisting of lower alkyl, halo, -OCF<sub>3</sub>, di(lower alkyl)amino and lower haloalkyl;

Z<sub>7</sub> is lower alkyl unsubstituted or substituted by at least one halo;

Z'<sub>6</sub> and Z'<sub>7</sub> are independently i) H, or lower alkyl, or ii) lower arylalkyl;

Z<sub>9</sub> is lower alkyl or lower arylalkyl;

Z'<sub>11</sub>, Z'<sub>12</sub> and Z'<sub>13</sub> are independently lower alkyl;

Z'<sub>13</sub>

$Z_{18}$  and  $Z_{19}$  are independently H or halo;

$Z_{20}$  is H;

$Z_p$  is H or  $-\text{C}(\text{O})-\text{A}-\text{N}_{22}\text{Z}_{23}$ , in which A is alkylene unsubstituted or substituted by a member selected from the group consisting of free, esterified or salified hydroxy, halogen, free, esterified or salified carboxy, amino and mono and dialkylamino radicals;

$Z_{22}$  and  $Z_{23}$  are independently H or lower alkyl;

m is an integer between 0 and 6;

n is 1 or 2; and

q is an integer from 0 to 2; and

$[\text{N}=\text{X}]$  is a heterocyclic group with 4 to 7 ring members, X is the chain necessary to complete said heterocyclic group and is selected from the group consisting of O,  $\text{CH}_2$ , CH, N and  $\text{NZ}_9$ ;

or a pharmaceutically acceptable salt thereof.

**Claim 6 (previously presented)**

A compound of claim 1 wherein  $Z_{18}$ ,  $Z_{19}$  and  $Z_{20}$  are H; or a pharmaceutically acceptable salt thereof.

**Claim 7 (previously presented)**

A compound of claim 1 wherein  $Z_1$  is ethyl or a pharmaceutically acceptable salt thereof.

**Claim 8 (previously presented)**

A compound of claim 1 wherein  $Z_p$  is  $-\text{C}(\text{O})-\text{A}-\text{NZ}_{22}\text{Z}_{23}$  or a pharmaceutically acceptable salt thereof.

**Claim 9 (previously presented)**

A compound of claim 1 wherein  $Z_p$  is H or a pharmaceutically acceptable salt thereof.

**Claims 10 and 11 (cancelled)**

**Claim 12 (previously presented)**

A compound of claim 1 wherein  $Z_6$  is  $-(\text{CH}_2)_m\text{SiZ}'_{11}\text{Z}'_{12}\text{Z}'_{13}$  or a pharmaceutically acceptable salt thereof.

**Claim 13** (previously presented)

A compound of claim 1 selected from the group consisting of:

(5R)-5-ethyl-9,10-difluoro-5-hydroxy-12-(2-trimethylsilylethyl)-4,5,13,15-tetrahydro-1H,3H-oxepino[3',4': 6,7] indolizino[1,2-b]quinoline-3,15-dione; and

(5R)-5-ethyl-5-hydroxy-12-(2-trimethylsilylethyl)-4,5,13,15-tetrahydro-1H,3H-oxepino[3',4': 6,7]indolizino[1,2-b]quinoline-3,15-dione.

**Claim 14** (previously presented)

A compound of claim 1 wherein  $Z_2$  is H or halo,  $Z_3$  is halo,  $Z_4$  is a member selected from the group consisting of H, halo and lower alkyl,  $Z_5$  is H or halo, and  $Z_6$  is a member selected from the group consisting of H, lower alkyl and  $-(CH_2)_n[N=X]$  substituted with lower alkyl or a pharmaceutically acceptable salt thereof.

**Claim 15** (previously presented)

A compound of claim 1 selected from the group consisting of:



(5R)-5-ethyl-9,11-difluoro-5-hydroxy-4,5,13,15-tetrahydro-1H,3H-oxino[3',4' : 6,7]  
indolizino[1,2-b]quinoline-3,15-dione; and

(5R)-5-ethyl-9,11-difluoro-5-hydroxy-12-propyl-4,5,13,15-tetrahydro-1H,3H-oxepino  
[3',4' : 6,7]indolizino[1,2-b]quinoline-3,15-dione; or a pharmaceutically acceptable salt  
thereof.

**Claim 16** (cancelled)

**Claims 17 to 27** (cancelled)